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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/617,168	07/17/2000	Reinhold Nutz JR.	Serie 5379	7634	
7:	590 04/01/2003				
Jeffrey L Wendt		EXAMINER			
Air Liquide 2700 Post Oak Blvd			LEUNG, JEN	LEUNG, JENNIFER A	
Suite 1800 Houston, TX	77056		ART UNIT	PAPER NUMBER	
			1764	·	
			DATE MAILED: 04/01/2003	7	

Please find below and/or attached an Office communication concerning this application or proceeding.

_			H. G				
	Application No.	pplicant(s)	(
_	09/617,168	NUTZ ET AL.					
Office Action Summary	Examiner	Art Unit					
	Jennifer A. Leung	1764					
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet	with the correspondence add	dress				
A SHORTENED STATUTORY PERIOD FOR REPL' THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	36(a). In no event, however, may y within the statutory minimum of will apply and will expire SIX (6) No. c, cause the application to become	a reply be timely filed thirty (30) days will be considered timely IONTHS from the mailing date of this co					
1) Responsive to communication(s) filed on	·						
2a) This action is FINAL . 2b) ⊠ Th	nis action is non-final.						
3) Since this application is in condition for allows closed in accordance with the practice under Disposition of Claims			e merits is				
4)⊠ Claim(s) <u>1-31</u> is/are pending in the application	١.						
4a) Of the above claim(s) is/are withdraw							
5) Claim(s) is/are allowed.							
6) Claim(s) is/are rejected.	· · · · · · · · · · · · · · · · · · ·						
7) Claim(s) is/are objected to.	•						
8) Claim(s) 1-31 are subject to restriction and/or	election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine	er.						
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.							
If approved, corrected drawings are required in reply to this Office action.							
12) The oath or declaration is objected to by the Ex	aminer.						
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C	2. § 119(a)-(d) or (f).					
a) ☐ All b) ☐ Some * c) ☐ None of:							
1. Certified copies of the priority documents have been received.							
	 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage 						
3. Copies of the certified copies of the prio application from the International Bu* See the attached detailed Office action for a list	ireau (PCT Rule 17.2(a)).	Stage				
14) Acknowledgment is made of a claim for domesti	ic priority under 35 U.S.	C. § 119(e) (to a provisional	application).				
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachment(s)							
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice	ew Summary (PTO-413) Paper Not of Informal Patent Application (PTC					

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DETAILED ACTION

Election/Restrictions

- 1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-30, drawn to an apparatus, classified in class 422, subclass 150+.
 - II. Claim 31, drawn to a cyclic method of depositing carbon black, classified in class427, subclass 446.

The inventions are distinct, each from the other because of the following reasons:

Method - Apparatus

Inventions in this relationship are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)).

Inventions I and II are related as process and apparatus for its practice. In the instant case, the apparatus as claimed can be used to practice another and materially different process, such as spray coating or depositing an inorganic compound (i.e. silicon, metal oxide or metal alloy) onto a substrate.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the search required for Group I not required for Group II restriction for examination purposes as indicated is proper.

2. If Applicants elect Group I, restriction to one of the following inventions is required under 35 U.S.C. 121:

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- IA. Claims 1-16, drawn to an apparatus, classified in class 422, subclass 150+.
- IB. Claims 17-21, drawn to a nozzle, classified in class 239, subclass ---.
- IC. Claims 22-28, drawn to a head assembly, classified in class 239, subclass ---.
- ID. Claim 29, drawn to a clamp block, classified in class 248, subclass ---.
- IE. Claim 30, drawn to an ignition system, classified in class 361, subclass 247.

The inventions are distinct, each from the other because of the following reasons:

Combination - Subcombination

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)).

Inventions IA and IB are related as combination and subcombination. In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination merely requires a nozzle comprising a first and second injector and does not require the specifics of the nozzle set forth in claims 17-21. The subcombination has separate utility such as a nozzle for distributing fluids in a reactor or mixing device.

Inventions IA and IC are related as combination and subcombination. In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination merely requires a head assembly comprising a main gas block and an ignition source and does not require the specifics of the head assembly set forth in claims 22-28. The subcombination has separate utility such as a head assembly for a gas burner.

Inventions IA and ID are related as combination and subcombination. In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed

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because the combination merely suggests a means for mounting a head assembly and does not require the specifics of the clamp block as set forth in claim 29. The subcombination has separate utility such as a clamp block for supporting laboratory equipment or other machinery.

Inventions IA and IE are related as combination and subcombination. In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination merely requires an ignition source and does not require the specifics of the ignition system set forth in claim 30. The subcombination has separate utility such as an ignition system for a fuel reforming apparatus.

Subcombinations Usable Together

Inventions in this relationship are distinct if it can be shown that the subcombinations are separately usable. See MPEP § 806.05(d).

Inventions IB, IC, ID and IE are each related to the other as subcombinations disclosed as usable together in a single combination. In the instant case, invention IB has separate utility such as a nozzle for distributing fluids in a reactor or mixing device. Invention IC has separate utility such as a head assembly for a gas burner. Invention ID has separate utility such as a clamp block for supporting laboratory equipment or other machinery. Invention IE has separate utility such as an ignition system for a fuel reforming apparatus.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, their recognized divergent subject matter, and the search required for Group IA not required for Group IB not required for Group IC not required for Group ID not required for Group IE, restriction for examination purposes as indicated is proper.

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Applicant is advised that the reply to this requirement to be complete must include an 4.

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election of the invention to be examined even though the requirement be traversed (37 CFR

1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the 5.

inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

currently named inventors is no longer an inventor of at least one claim remaining in the

application. Any amendment of inventorship must be accompanied by a request under 37 CFR

1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jennifer A. Leung whose telephone number is 703-305-4951.

The examiner can normally be reached on 8:30 am - 5:30 pm M-F, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenn A. Caldarola can be reached on 703-308-6824. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9310 for regular

communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer A. Leung

March 28, 2003 JAL

Hen Fran